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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/751,512 | 01/06/2004 | Tatsuya Ito | 113112.01 | 3327 |

7590 04/28/2006

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Alexandria, VA 22320

EXAMINER

MRUK, GEOFFREY S

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2853

DATE MAILED: 04/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 10/751,512 | Applicant(s) ITO ET AL. | |
| | Examiner Geoffrey Mruk | Art Unit 2853 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 41-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 41-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/186,427.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>28 March 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 14 March 2006 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 41-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Shigemura (US 6,667,795 B2).

With respect to claim 41, Shigemura discloses an apparatus (Fig. 14) for manufacturing a color filter (Column 1, lines 15-24), comprising: a plurality of nozzles (Fig. 16, elements 108) for ejecting a filter material in droplets (Column 1, lines 26-33);

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and a plurality of ejection heads (Fig. 16, elements 120a, 120b, 121a, 121b, 122a, 122b), arranged on a print head (Fig. 16, element 606) each ejection head having the plurality of nozzles linearly arranged with a constant layout pitch of (D) (Fig. 23, Nozzle Pitch), the plurality of ejection heads are arranged on the print head to form only a single linear row of nozzles (Fig. 16, center line of nozzles, i.e. y direction), wherein a plurality of types of filter material (Column 10, lines 48-52) are each concurrently ejected (Column 24, lines 35-39) from the nozzles in the single linear row of nozzles on the print head.

With respect to claim 42, Shigemura discloses an apparatus (Fig. 14) for manufacturing an electroluminescence substrate (Column 1, lines 15-24), comprising: a plurality of nozzles (Fig. 16, elements 108) for ejecting a filter material in droplets (Column 1, lines 26-33); and a plurality of ejection heads (Fig. 16, elements 120a, 120b, 121a, 121b, 122a, 122b) arranged on a print head (Fig. 16, element 606) each ejection head having the plurality of nozzles linearly arranged with a constant layout pitch of (D) (Fig. 23, Nozzle Pitch), the plurality of ejection heads are arranged on the print head to form only a single linear row of nozzles (Fig. 16, center line of nozzles, i.e. y direction), wherein a plurality of types of filter material (Column 10, lines 48-52) are each concurrently ejected (Column 24, lines 35-39) from the nozzles in the single linear row of nozzles on the print head.

With respect to claim 43, Shigemura discloses a method for manufacturing a color filter (Columns 7-11), comprising: scanning a substrate by moving a table (Fig. 14, elements 603, 604) and a plurality of ejection heads (Fig. 16, elements 120a, 120b,

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121a, 121b, 122a, 122b) arranged on a print head (Fig. 16, element 606); and ejecting a plurality of types of filter material (Column 10, lines 48-52) in droplets (Column 1, lines 26-33) by the plurality of ejection heads each ejection head having a plurality of nozzles (Fig. 16, elements 108) arranged with a constant layout pitch of (D) (Fig. 23, Nozzle Pitch), the plurality of ejection heads being linearly arranged to form only a single linear row of nozzles (Fig. 16, center line of nozzles, i.e. y direction), wherein a plurality of types of filter material (Column 10, lines 48-52) are each concurrently ejected (Column 24, lines 35-39) from the nozzles in the single linear row of nozzles on the print head.

With respect to claim 44, Shigemura discloses a method for manufacturing an electroluminescence substrate (Columns 26-27), comprising: scanning a substrate by moving a table (Fig. 14, elements 603, 604) and a plurality of ejection heads (Fig. 16, elements 120a, 120b, 121a, 121b, 122a, 122b) arranged on a print head (Fig. 16, element 606); and ejecting a plurality of types of functional layer forming material (Column 27, lines 30-34) in droplets (Column 1, lines 26-33) by a plurality of ejection heads, each ejection head having a plurality of nozzles arranged with a constant layout pitch of (D) (Fig. 23, Nozzle Pitch), the plurality of ejection heads being linearly arranged to form a linear row of nozzles (Fig. 16, center line of nozzles, i.e. y direction), wherein a plurality of types of filter material (Column 10, lines 48-52) are each concurrently ejected (Column 24, lines 35-39) from the nozzles in the single linear row of nozzles on the print head.

Response to Arguments

Applicant's arguments filed 14 March 2006 have been fully considered but they are not persuasive. The applicant's argument that "Applicants' disclosure at paragraph [0148] indicates that when the filter material includes the three types of ink of R(red), G(green), and B(blue), a plurality of passages, for example, three passages are arranged in at least one of the plurality of ink jet heads (liquid-drop material discharge heads) 22, and the three passages allow the three types of ink of R(red), G(green) and B(blue), respectively be allowed to pass therethrough. No such feature is taught, nor can reasonably be considered to have been suggested, by Shigemura" is not persuasive. However, as stated in the instant rejection and by applicant's remarks, Shigemura discloses an ink jet head unit (Fig. 13, element 606) where "Although FIG. 13 illustrates the ink jet heads being individually provided for the three colors of R, G, and B, the heads themselves for these three colors are each of identical configuration, so FIG. 18 representatively illustrates the structure of one of the RGB color heads" (Column 16, lines 51-56) and "Each of the liquid channels 110 are connected at the back side to a shared liquid chamber 114, with ink being supplied to the ink liquid chamber 114 from an ink supplying tube 116, and the ink being supplied from the liquid chamber 114 to each of the liquid channels 110" (Column 16, lines 64-67; Column 17, lines 1-3). Therefore, Shigemura meets the claimed limitations. The examiner notes that the applicant's argument is at paragraph [146] of the disclosure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey Mruk whose telephone number is 571 272-2810. The examiner can normally be reached on 7am - 330pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GSM
4/26/2006

GM


STEPHEN MEIER
SUPERVISORY PATENT EXAMINER